What is claimed is:

1. An image recording apparatus comprising: image compression means;

means for storing in a memory input image data as basic image data in a period of a predetermined number of fields as well as feeding the input image data to the image compression means;

means for finding, with respect to each of the input image data corresponding to the fields between the field corresponding to the input image data which has been stored in the memory and the field corresponding to the input image data which is to be subsequently stored in the memory, the difference between the input image data and the basic image data which has been most newly stored in the memory, and feeding data representing the obtained difference to the image compression means; and

means for recording on a recording medium compressed data for each field which has been compressed by the image compression means, together with identification information indicating whether the compressed data corresponds to the basic image data or the difference data.

2. An image reproducing apparatus for reproducing the data which has been recorded on the

recording medium by the image recording apparatus according to claim 1, comprising:

means for reading the compressed data and the identification information from the recording medium;

image expansion means for expanding for each field the compressed data which has been read from the recording medium and returning the expanded compressed data to the data which has not been compressed by said image compression means;

means for judging whether the data for each field which has been expanded by the image expansion means is the basic image data or the difference data on the basis of the identification information;

means for storing, when the data for each field which has been expanded by the image expansion means is the basic image data, the basic image data in the memory as well as outputting the basic image data as reproduced image data; and

means for restoring, when the data for each field which has been expanded by the image expansion means is the difference data, the original image data on the basis of the difference data and the basic image data which has been most newly stored in the memory, and outputting the obtained image data as

reproduced image data.

3. An image recording/reproducing apparatus comprising a recording apparatus and a reproducing apparatus, wherein

the recording apparatus comprises

image compression means,

means for storing in a memory input image data as basic image data in a period of a predetermined number of fields as well as feeding the input image data to the image compression means,

means for finding, with respect to each of the input image data corresponding to the fields between the field corresponding to the input image data which has been stored in the memory and the field corresponding to the input image data which is to be subsequently stored in the memory, the difference between the input image data and the basic image data which has been most newly stored in the memory, and feeding data representing the obtained difference to the image compression means, and

means for recording on a recording medium compressed data for each field which has been compressed by the image compression means, together with identification information indicating whether the compressed data corresponds to the basic image

data or the difference data, and

the reproducing apparatus comprises

means for reading the compressed data and the identification information from the recording medium,

image expansion means for expanding for each field the compressed data which has been read from the recording medium and returning the extracted compressed data to the data which has not been compressed by said image compression means,

means for judging whether the data for each field which has been expanded by the image expansion means is the basic image data or the difference data on the basis of the identification information,

means for storing, when the data for each field which has been expanded by the image expansion means is the basic image data, the basic image data in the memory as well as outputting the basic image data as reproduced image data, and

means for restoring, when the data for each field which has been expanded by the image expansion means is the difference data, the original image data on the basis of the difference data and the basic image data which has been most newly stored in the memory, and outputting the obtained image data as

reproduced image data.

4. An image recording apparatus for recording on a recording medium a time division multiplex image signal obtained by subjecting image signals from a plurality of video cameras to time division multiplexing and having information relating to the camera numbers of the video cameras respectively corresponding to fields included therein added thereto, comprising:

storage means respectively provided in correspondence with the camera numbers;

means for storing, for each group of fields assigned the same camera number which are included in the time division multiplex image signal, image data as basic image data in the storage means corresponding to the camera number assigned to the group of fields in a period of a predetermined number of fields as well as feeding the image data to the image compression means;

means for finding, in each group of fields assigned the same camera number which are included in the time division multiplex image signal, the difference between each of the image data corresponding to the fields between the field corresponding to the image data which has been stored

in the storage means corresponding to the camera number assigned to the group of fields and the field corresponding to the image data which is to be subsequently stored in the corresponding storage means and the basic image data which has been most newly stored in the corresponding storage means, and feeding data representing the obtained difference to the image compression means; and

means for recording on a recording medium each of compressed data for each field which have been compressed by the image compression means, together with identification information indicating whether the compressed data corresponds to the basic image data or the difference data and the camera number.

5. An image reproducing apparatus for reproducing the data which has been recorded on the recording medium by the image recording apparatus according to claim 4, comprising:

means for reading the compressed data, the identification information, and the camera number from the recording medium;

image expansion means for expanding for each field the compressed data which has been read from the recording medium and returning the expanded compressed data to the data which has not been

compressed by said image compression means;

means for judging whether the data for each field which has been expanded by the image expansion means is the basic image data or the difference data on the basis of the identification information;

means for storing, when the data for each field which has been expanded by the image expansion means is the basic image data, the basic image data in the storage means corresponding to the camera number corresponding to the basic image data as well as outputting the basic image data as reproduced image data; and

means for restoring, when the data for each field which has been expanded by the image expansion means is the difference data, the original image data on the basis of the difference data and the basic image data which has been most newly stored in the storage means corresponding to the camera number corresponding to the difference data, and outputting the obtained image data as reproduced image data.

6. An image recording/reproducing apparatus comprising a recording apparatus for recording on a recording medium a time division multiplex image signal obtained by subjecting image signals from a plurality of video cameras to time division

multiplexing and having information relating to the camera numbers of the video cameras respectively corresponding to fields included therein added thereto, and a reproducing apparatus for reproducing the data which has been recorded on the recording medium, wherein

the recording apparatus comprises

storage means respectively provided in correspondence with the camera numbers,

means for storing, for each group of fields assigned the same camera number which are included in the time division multiplex image signal, image data as basic image data in the storage means corresponding to the camera number assigned to the group of fields in a period of a predetermined number of fields as well as feeding the image data to the image compression means,

means for finding, in each group of fields assigned the same camera number which are included in the time division multiplex image signal, the difference between each of the image data corresponding to the fields between the field corresponding to the image data which has been stored in the storage means corresponding to the camera number assigned to the group of fields and the field

corresponding to the image data which is to be subsequently stored in the corresponding storage means and the basic image data which has been most newly stored in the corresponding storage means, and feeding data representing the obtained difference to the image compression means, and

means for recording on a recording medium each of compressed data for each field which have been compressed by the image compression means, together with identification information indicating whether the compressed data corresponds to the basic image data or the difference data and the camera number, and

the reproducing apparatus comprises

means for reading the compressed data, the identification information, and the camera number from the recording medium,

image expansion means for expanding for each field the compressed data which has been read from the recording medium and returning the expanded compressed data to the data which has not been compressed by said image compression means,

means for judging whether the data for each field which has been expanded by the image expansion means is the basic image data or the difference data

on the basis of the identification information,

means for storing, when the data for each field which has been expanded by the image expansion means is the basic image data, the basic image data in the storage means corresponding to the camera number corresponding to the basic image data as well as outputting the basic image data as reproduced image data, and

means for restoring, when the data for each field which has been expanded by the image expansion means is the difference data, the original image data on the basis of the difference data and the basic image data which has been most newly stored in the storage means corresponding to the camera number corresponding to the difference data, and outputting the obtained image data as reproduced image data.

7. An image recording apparatus for recording on a recording medium an image signal having a predetermined VBI signal multiplexed on a vertical blanking period in each of fields included therein, comprising:

AD conversion means for converting the image signal into digital image data;

VBI separation and coding means for separating for each field VBI data from the digital image data

as well as coding the separated VBI data to produce coded VBI data;

image data compression means for compressing for each field the image data from which VBI data has been separated;

coded VBI data addition means for adding to the compressed image data corresponding to each of the fields which has been obtained by the image data compression means the coded VBI data corresponding to the field; and

recording means for recording on the recording medium the compressed image data to which the coded VBI data has been added by the coded VBI data addition means.

8. The image recording apparatus according to claim 7, wherein

the VBI separation and coding means comprises means for separating the VBI data from the image data for each field,

first VBI data compression means for slicing the separated VBI data at a predetermined level, to compress the VBI data in the bit direction, and

second VBI data compression means for averaging for each predetermined number of data the compressed VBI data obtained by the first VBI data

compression means, and compressing the averaged compressed VBI data in the time axis direction.

9. An image reproducing apparatus for reproducing the data which has been recorded on the recording medium by the image recording apparatus according to claim 7, comprising

means for reading from the recording medium the compressed image data to which the coded VBI data has been added;

VBI separation and coding means for separating the coded VBI data from the compressed image data which has been read from the recording medium as well as decoding the separated coded VBI data, to produce VBI data;

image data expansion means for expanding for each field the compressed image data from which the coded VBI data has been separated;

VBI data addition means for adding to the image data corresponding to each of the fields which has been obtained by the image data expansion means the VBI data corresponding to the field; and

DA conversion means for converting the image data to which the VBI data has been added by the VBI data addition means into an analog image signal.

10. An image recording/reproducing apparatus

comprising a recording apparatus for recording on a recording medium an image signal having a predetermined VBI signal multiplexed on a vertical blanking period in each of fields included therein, and a reproducing apparatus for reproducing data which has been recorded on the recording medium, wherein

the recording apparatus comprises

AD conversion means for converting the image signal into digital image data,

VBI separation and coding means for separating for each field VBI data from the digital image data as well as coding the separated VBI data to produce coded VBI data,

image data compression means for compressing for each field the image data from which the VBI data has been separated,

coded VBI data addition means for adding to the compressed image data corresponding to each of the fields which has been obtained by the image data compression means the coded VBI data corresponding to the field, and

recording means for recording on the recording medium the compressed image data to which the coded VBI data has been added by the coded VBI data addition

means, and

the reproducing apparatus comprises

means for reading from the recording medium the compressed image data to which the coded VBI data has been added,

VBI separation and coding means for separating the coded VBI data from the compressed image data which has been read from the recording medium as well as decoding the separated coded VBI data, to produce VBI data,

image data expansion means for expanding for each field the compressed image data from which the coded VBI data has been separated,

VBI data addition means for adding to the image data corresponding to each of the fields which has been obtained by the image data expansion means the VBI data corresponding to the field, and

DA conversion means for converting the image data to which the VBI data has been added by the VBI data addition means into an analog image signal.

11. The image reproducing apparatus according to claim 10, wherein

the VBI separation and coding means comprises means for separating the VBI data from the image data for each field,

first VBI data compression means for slicing the separated VBI data at a predetermined level, to compress the VBI data in the bit direction, and

second VBI data compression means for averaging for each predetermined number of data the compressed VBI data obtained by the first VBI data compression means, and compressing the averaged compressed VBI data in the time axis direction.

12. A read data error detecting method in an image recording/reproducing apparatus for reading, at the time of play, data for each block including a plurality of fields from a recording medium to store the data in a memory, and then successively reading out the data in the block from the memory to perform play processing, wherein

the data for each field which is recorded on the recording medium includes a frame header which is inserted into a position at the head of the data corresponding to the field, at least one error detecting header which is inserted into a position spaced a predetermined number of words apart from the frame header and/or a position where the number of words from the frame header can be previously specified before data at the position is stored in the memory, and an end code which is inserted into

the final position of the data corresponding to the field, and further comprising the step of

confirming the frame header from the data read from the recording medium when the data read from the recording medium is stored in the memory at the time of play, starting, when the frame header is detected, to count the number of words, confirming, when the counted number of words corresponds to the position where the predetermined error detecting header is inserted, whether or not the error detecting header exists, and judging that an error occurred if the error detecting header cannot be confirmed.

13. The read data error detecting method in the image recording/reproducing apparatus according to claim 12, further comprising the steps of

returning, when it is judged that the error occurred, a pointer to an address in the memory into which an end code in the field preceding the field where it is judged that the error occurred is written, stopping, until a frame header in the field succeeding the field where it is judged that the error occurred is sent, the writing of data into the memory, and starting, when a frame header in the

field succeeding the field where it is judged that the error occurred, to write the data corresponding to the field upon advancing the pointer by one position.